



UNITED STATES PATENT AND TRADEMARK OFFICE

m2

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/800,552

03/15/2004

Tsung Chieh Cho

DEE-PT158

9812

3624 7590 04/09/2007
VOLPE AND KOENIG, P.C.
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

LEWIS, DAVID LEE

ART UNIT

PAPER NUMBER

2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/800,552

Applicant(s)

CHO, TSUNG CHIEH

Examiner

David L. Lewis

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 2629

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Park et al. (7133038).**

As in claim 1, Park et al. teaches of a power supply device of an LCD (liquid crystal display) module, figure 1 item 140, figure 5,

comprising: a plurality of dividing resistors electrically connected in series and having a first end and a second end, figure 5 item R1-R5,

said first end being electrically connected to a direct-current power supply for generating an output working voltage between every two adjacent dividing resistors which is then outputted to said LCD module, figure 5 item 20;

and a voltage following device electrically connected to said second end of said dividing resistors for regulating said output working voltage through an input of a regulating voltage at said second end, **figure 5 item 224**.

As in claim 2, Park et al. teaches of wherein said voltage following device is a voltage follower including an operation amplifier, figure 5 item 224.

As in claim 3, Park et al. teaches of further comprising a converter for converting an input voltage into a higher voltage to be used as said direct-current power supply, figure 5 item 210.

As in claim 4, Park et al. teaches of wherein said converter is a DC/DC converter, figure 5 item 210.

As in claim 5, Park et al. teaches of wherein said LCD module is an STN-LCD module, column 1 lines 13-20 and 40-50.

As in claim 6, Park et al. teaches of LCD module having a regulating working voltage, **column 5 lines 48-56**, comprising: an LCD panel having a first substrate, a second substrate and a liquid crystal layer, **column 1 lines 1-50** (wherein said structure is inherent to said LCD as is known); a column driving circuit for generating a column control signal to column drive said LCD panel; a row driving circuit for generating a row control signal to row drive said LCD panel, **column 1 lines 1-50** (wherein said structure is inherent to said LCD as is known); and a power supply device as claimed in claim 1 for providing said

working voltages to said column driving circuit and said row driving circuit, **column 1 lines 1-50** (wherein said structure is inherent to said LCD as is known).

As in claim 7, Park et al. teaches of wherein said power supply device of said LCD module, **figures 1 and 5,**

comprises: a plurality of dividing resistors electrically connected in series and having a first end and a second end, **figure 5 item R1-R5,**

said first end being electrically connected to a direct-current power supply for generating output working voltage between every two adjacent dividing resistors which is then outputted to said LCD module, **figure 5 item 210;**

and a voltage following device electrically connected to said second end of said dividing resistors for regulating said output working voltage through an input of a regulating voltage at said second end, **figure 5 item 224.**

As in claim 8, Park et al. teaches of wherein said voltage following device is a voltage follower including an operation amplifier, **figure 5 item 224.**

As in claim 9, Park et al. teaches of wherein a converter is used as said direct-current power supply for converting an input voltage to a higher voltage to be used as said direct-current power supply, **figure 5 item 210.**

As in claim 10, Park et al. teaches of wherein said converter is a DC/DC converter, figure 5 item 210.

As in claim 11, Park et al. teaches of wherein said LCD module is a STN-LCD module, column 1 lines 13-20 and 40-50.

As in claim 12, Park et al. teaches of a power supply device of an LCD module, figures 1 and 5,

comprising: a converter for converting a first voltage into a second voltage, figure 5 item 210;

a dividing components having a first end and a second end, said first end being electrically connected to said converter for generating a set of working voltages in response to said second voltage so as to be outputted to said LCD module, figure 5 item R1-R5;

and a voltage following device electrically connected to said second end of said dividing components for regulating said set of working voltages through a provision of a regulating voltage, figure 5 item 224.

Art Unit: 2629

As in claim 13, Park et al. teaches of wherein said dividing components comprises a plurality of dividing resistors connected in series, figure 5 items R1-R5.

As in claim 14, Park et al. teaches of wherein an output working voltage is generated between every two adjacent dividing resistors, figure 5 items N1-N4.

As in claim 15, Park et al. teaches of a method of regulating a power supply of an LCD module, figures 1 and 5,

comprising the following steps: (a) providing a first voltage, **figure 5 item VCI**;

(b) converting said first voltage into a second voltage, **figure 5 item 210**;

(c) generating a set of output working voltages in response to said second voltage for being provided to said LCD module, **figure 5 item V1-V5**;

and (d) providing a regulating voltage for regulating said set of output working voltages, **figure 5 item 260/270 or 224**.

As in claim 16, Park et al. teaches of wherein the step (c) further comprises the following steps: providing a set of dividing components, figure 5 item R1-R5; electrically connecting said second voltage to a first end of said dividing

components, figure 5 item VO; and outputting said set of output working voltages from said dividing components, figure 5 items N1-N4.

As in claim 17, Park et al. teaches of wherein said step (d) further comprises the following steps: providing said regulating voltage, figure 5 item 260/270 or 224; inputting said regulating voltage into a voltage following device to generate said regulating voltage, figure 5 item VFB or N4; and inputting said regulating voltage into a second end of said dividing components to regulate said set of output working voltages, figure 5 item N4/V4.

Conclusion

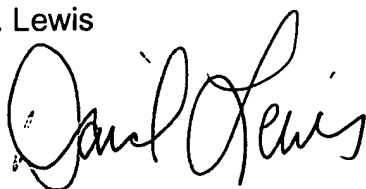
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 2001/0013864, 7138971, 5798741.
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.
4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2629

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis

March 30, 2007

A handwritten signature in black ink, appearing to read "David Lewis", written over a horizontal line.